

*"Testing World-Class Solutions For
Warfighters"*



COMPARATIVE TESTING OFFICE

TURNING TECHNOLOGY INTO DEFENSE

*Foreign
Comparative
Testing (FCT)*



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FCT - Testing Foreign Equipment for the Warfighter

Established in 1980 by 10 USC, Section 2350a(g), to determine ability of NATO & friendly foreign countries to satisfy U.S. requirements or operational deficiencies

- **Authorizes side-by-side testing of - -**
 - ✓ **Foreign Non-developmental, or**
 - ✓ **Commercial Off-the-Shelf Equipment**
- **Focus on mature or late-stage technologies ... TRL 7-9!**

Foreign Comparative Testing (FCT) Searching for World-Class Technologies

- Side-by-side testing of foreign non-developmental, or commercial off-the-shelf (COTS) equipment to meet US warfighting needs
- Proposals must address -
 - How technology satisfies an operational or capability need
 - Sponsorship: Program of Record (PoR) / acquisition customer

Data that May Help in Assessing Participation (1980-2009)

Annual Funds	Projects Awarded/Value	Individual Project Value	Project Duration	Projects Complete	Projects Procured & Value	TRL	Participation
\$34.9 M (FY09)	601 @ \$1.1B	\$200K - \$5M (Avg. \$1.8M)	1 to 3 years	512	198 @ \$9B	7-9	28 Coalition Countries

FCT Metrics Over Last 29 Years



601 Projects Started, 512 Completed

277 Projects Met Service Requirements

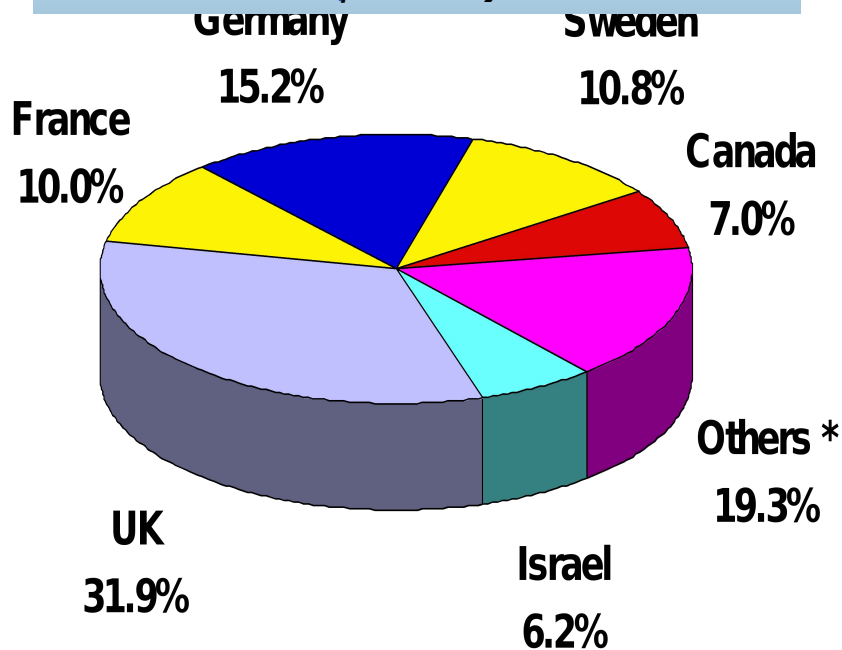
198 Projects - Procurements Worth \$8

- **Tested Products from 28 Countries**
- **OSD Investment: \$1.14 Billion (constant FY09 \$)**
- **Estimated RDT&E Cost Avoidance: \$7.58 Billion**
- **Accelerated Fielding Averages 5-7 years**
- **Procurement Rate ~ 80% in the Past 6 Years**
- **Foreign Vendor Teaming with U.S. Industry in 33 States**

FCT's Global Reach

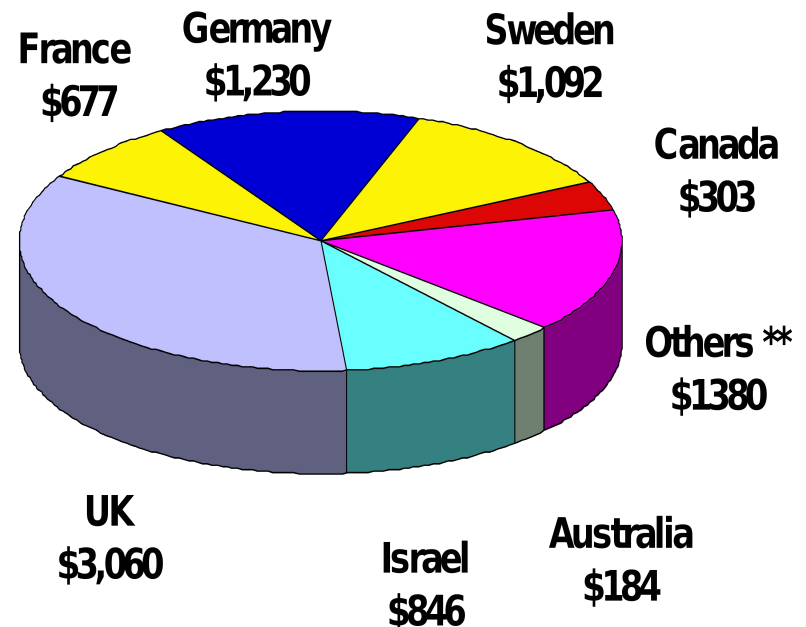
Testing & Procurement By Country (FY 1980 - 2008)

***FCT Funding Provided
(Percent by Country -
\$1.1B)***



* Others -- Australia, Austria, Belgium, Croatia, Denmark, Finland, Iceland, India, Italy, Japan, Netherlands, New Zealand, Norway, Poland, Russian Federation, Republic of South Africa, Republic of Korea, Singapore, Spain, Switzerland, Ukraine

***Procurements
(\$Million - Overall \$8.9B)***



** Others -- Belgium, Denmark, Finland, India, Italy, Japan, Norway, Russian Federation, Republic of South Africa, Switzerland

Reflects FY08 Constant Year Dollars

FCT Impact

Examples of Warfighter Deployment (2006-2008 Projects)

AA 5059 Aluminum Alloy for Armor (Army & Aleris, Germany)

- ✓ Provides ballistics protection and corrosion resistance for armored vehicles
- ✓ Saves warfighters lives; tested FY06 and fielded late FY07 to OIF/OEF



Special Operations Forces Combat Assault Rifle (SOCOM & FN Herstal, Belgium)

- ✓ Flexible, reliable weapon for SOF units,
- ✓ Inter-changeable barrels in light (5.56mm) and heavy (7.62mm) version
- ✓ Initial fielding in FY 09



Biocular Image Control Unit (Navy/USMC & Brimar, UK)

- ✓ Enables 2nd GEN FLIR imagery to be displayed in the M1A1 gunner's primary sight
- ✓ Enhances situational awareness, target recognition & engagement, reduces fatigue
- ✓ Deployed in Iraq



M1A1 Tank Blade (Navy/USMC & Pearson Engineering, UK)

- ✓ Provides Tank Battalions with an organic engineering capability
- ✓ Tested, evaluated and fielded to OIF within 2 years



High Rate of Fire .50 Cal Machine Gun (Navy & FN Herstal, Belgium)

- ✓ More Lethal Crew Served Weapon
- ✓ Replaced obsolete .50 Cal machine guns aboard Marine Corps helicopters
- ✓ Tested, evaluated and fielded to OIF/OEF/CITE HQA within 2 years



FY 2009 FCT New-Starts



Battlefield
Waste
Management
&
Demonstration

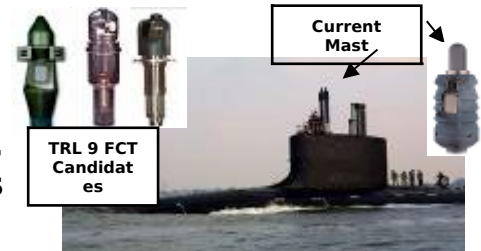
Pyrolysis Unit
Ready for
Installation on
HMS Ocean



• **Pyrolysis Solid Waste Disposal with Energy Recovery - UK.** Test a transportable waste disposal system to thermally destroy solid, oil & medical waste at forward operating bases & recover heat for energy conversion

• **Improved Photonics Mast for US Navy Submarines - Germany, France, UK.**

Tests alternative masts with modular construction and color HDTV capability, improving reliability & operational issues for current VA & Ohio Class masts



Making Marines
Cool

• **M1A1 Crew Cooling System - Israel, Canada, Sweden.** Evaluate systems that reduce heat-related illness, battle fatigue, and improve crewmember performance - tank crew endure temperatures > 140°F

• **H-53 Low Cost and Reliable Generator Control Unit (GCU) - Germany.** Test a lower cost, higher reliability GCU - goal to increase mean time between failure from 640 to 16K hrs



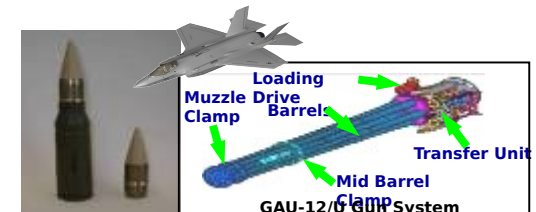
Generator
Control Unit
(GCU)



• **Improved Speed Sensor for Ships and Submarines - UK.** Test an improved composite rodmetr currently deployed with Royal Navy - potential to deliver more accurate readings for improved C2



• **25MM Round for F-35/JSF - Switzerland.** Test a multi-purpose frangible penetrating round that can be used to engage hard and soft targets

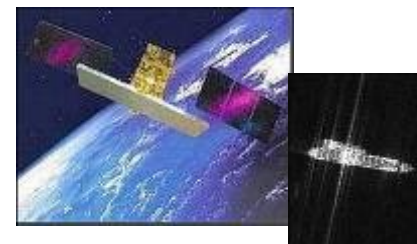


FY 2009 FCT New-Starts (Cont'd)



Insensitive Munitions (IM) Improvement of Light Armored Weapon Rocket Motor - Norway, UK, Sweden. Evaluates IM compliant solutions that improves overall safety of the LAW & fields IM compliant rocket motor system

COSMO-SkyMed - Italy. Test a constellation of four imaging satellites with multi-polarization Synthetic Aperture Radar (SAR) with 1- meter resolution



Carl Gustaf 20mm Training System - Sweden. Evaluate 20mm HEDP rounds & sub-caliber training adapters for the 84mm anti-armor & anti-personnel weapon

Enhanced Fuze for 70mm Multi-Purpose Penetrating Warhead - Norway. Test an electronic fuze that enables “Little Bird” helicopter pilots to change delay settings on 70mm rocket warhead - engagement with a wider range of targets

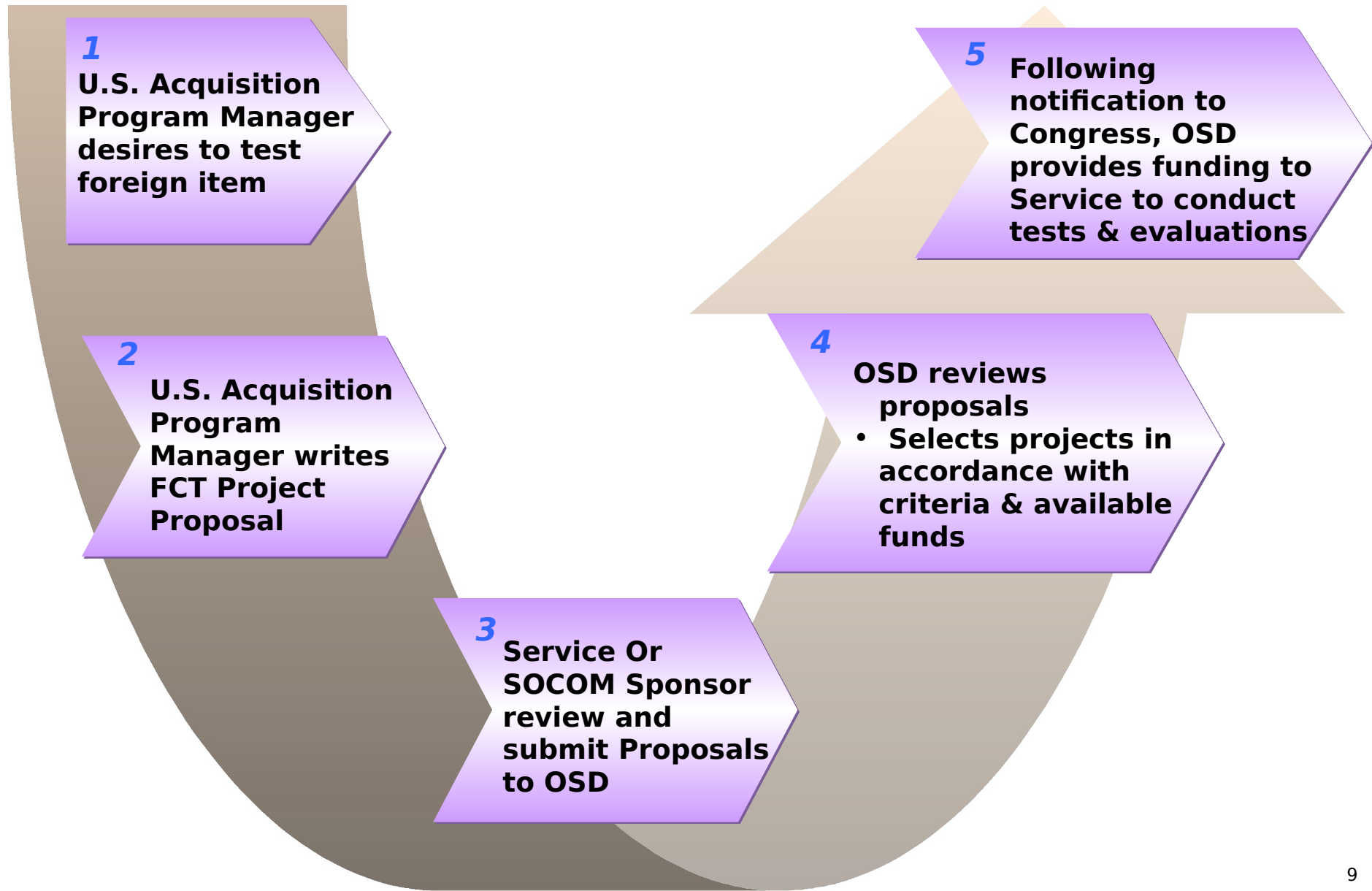


Precision Sniper Rifle - Canada, UK, Finland. Comparatively test multiple sniper rifle systems capable of accurately engaging enemy personnel out to ranges of 1,500 meters, enhancing SOF sniper survivability

Submersible, Multi-fuel Outboard Engine - Italy. Test an air-assisted direct-injection fuel delivery system currently used on commercial off-the-shelf, lightweight, submersible outboard engines



FCT: How It Works



FCT 2010 Timeline

Proposal Preparation & Submission



HOW TO ENGAGE

- **Engage your Embassy Officials in the U.S., both Defense and Commercial**
- **Establish contact with OSD and Service/USSOCOM Comparative Test Office (CTO). When in the U.S., set up appointments to visit with the Service/USSOCOM or OSD FCT personnel**
- **Submit a FCT Proposal to the Service/USSOCOM CTO for equipment/products you think have potential**
- **Keep checking for FCT Requests for Proposals, Requests for Information, or Sources Sought on www.fedbizopps.gov and respond when appropriate**
- **Invite U.S. Service/USSOCOM CTO Representative to Conferences, Shows and Industry Tours in your Country**

FCT Key Points of Contact

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